SHARP Service Manual

MODEL

RT-1200H

In the interests of user-safety the set should be restored to its original condition and only parts indentical to those specified be used.

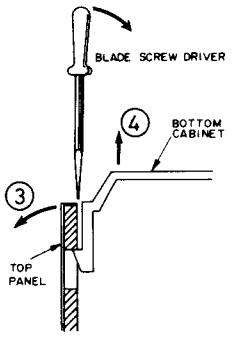
SPECIFICATIONS

Type:	AC operated 4-track 2-channel Solid-state Stereo Cassette Tape Record/ Playback Deck with automatic Stop System
Power source:	AC 110/220/240V, 50Hz
Power consumption:	8 watts
Semiconductors:	9-transistor, 4-IC, 18-diode, 1-Light Emission Diode
Dimensions:	406mm(W) x 256mm(D) x 112mm(H)
Weight:	4.8 kg
Input circuitry:	Microphone jack 500 ohm x 2 REC/PB(DIN) Socket x 1
Output circuitry:	Headphones output jack 8 ohm x 1 REC/PB(DIN) Socket x 1
Tape:	Philips standard compact cassette tape
Tape speed:	4.8cm/sec
Record/Playback time:	60 minutes (C-60)
Recording system:	AC bias system (84 kHz)
Erasing system:	AC erasing
Fast forward & Rewind time:	100 seconds (C-60)
Wow & Flutter:	0.2% Weighted peak (DIN)
Frequency response:	40 – 14,000Hz (CrO_2 tape, DIN) 40 – 12,000Hz (Normal tape, DIN)
S/N ratio:	50 dB
Distortion:	1.5%
Channel separation:	34 dB
Erase ratio:	70 dB
Input sensitivity & input impedance:	Microphone 0.2mV @ 500 ohms REC/PB(DIN) Socket Low: 0.63mV, @ 10K ohms High: 50mV, @680K ohms
Output level & loaded impedance:	Headphones 0.5mW (0VU) @8 ohm REC/PB(DIN) Socket 500mV (0VU), 50K ohms

SHARP CORPORATION OSAKA, JAPAN

CABINET REMOVAL (Refer to Figure 1)

1. Depress the EJECT knob and take out the cassette.
2. Remove 2 RECORD LEVEL control knobs.
3. Remove 2 cabinet bottom retaining screws and cabinet bottom.
4. Now, the panel top is ready for removal.



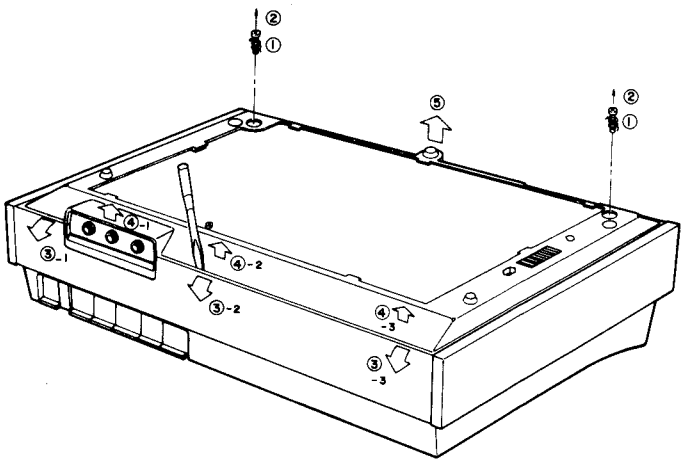


Figure 1

PAUSE MECHANISM ADJUSTMENT (Refer to Figure 2)

1. Put the mechanism in PLAY mode and slowly depress the pause pushbutton. At the time, see that the take-up idler and take-up turntable come off from each other and also the capstan shaft and pressure roller come off from each other.
2. If it is found that the checking in the step 1 above is not satisfied, further adjust the adjustment point shown in Figure 2.

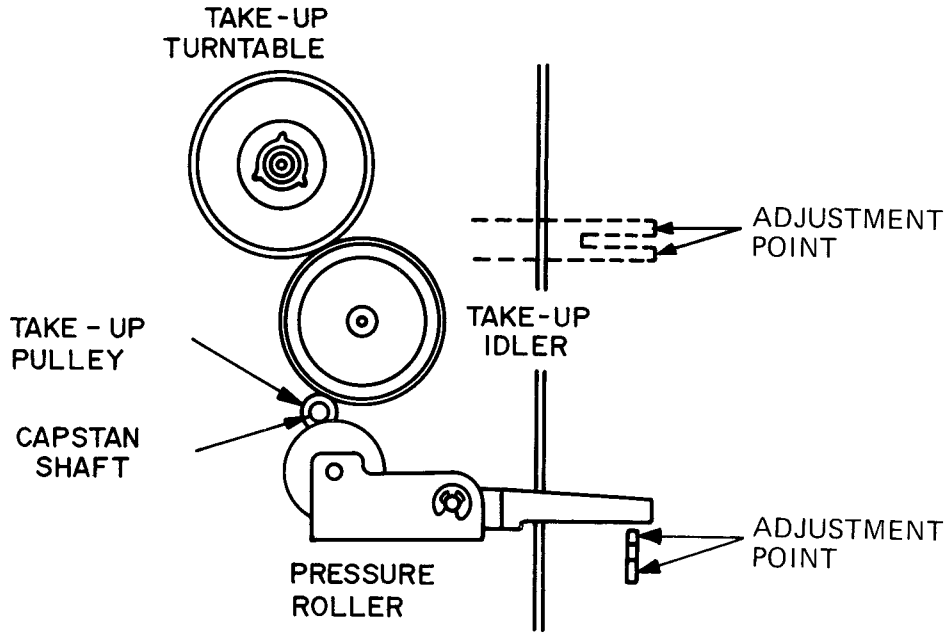


Figure 2

PRESSURE ROLLER PRESSURE ADJUSTMENT (Refer to Figure 3)

1. With power supply turned on, push the point A with use of tesnion gauge to make the pressure roller apart from the capstan shaft. Then, gradually release the tension gauge and read its value when the pressure roller starts to rotate.
2. It is normal when the tension gauge reads 335 – 415 g. If the above value is not satisfied, change the setting position of pressure spring.

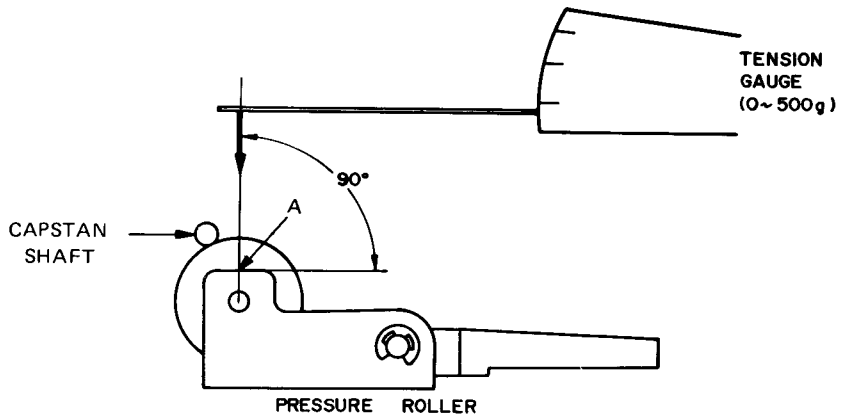


Figure 3

FLYWHEEL THRUST CLEARANCE ADJUSTMENT (Refer to Figure 4)

Slowly tighten the screw for flywheel thrust clearance until the thrust clearance becomes 0 (zero) and loosen the screw by 2/5 turn from this point. Since screw's pitch is 0.5mm, thrust clearance of about 0.2mm is produced.

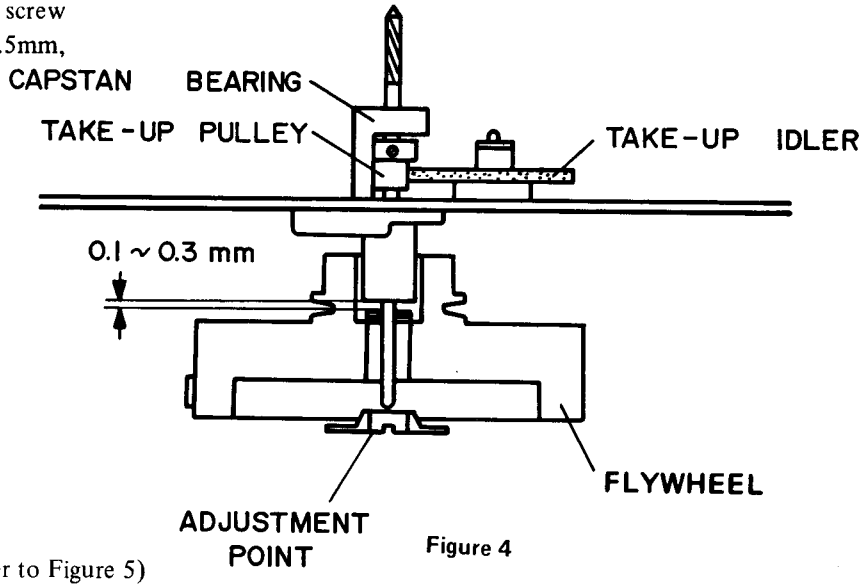
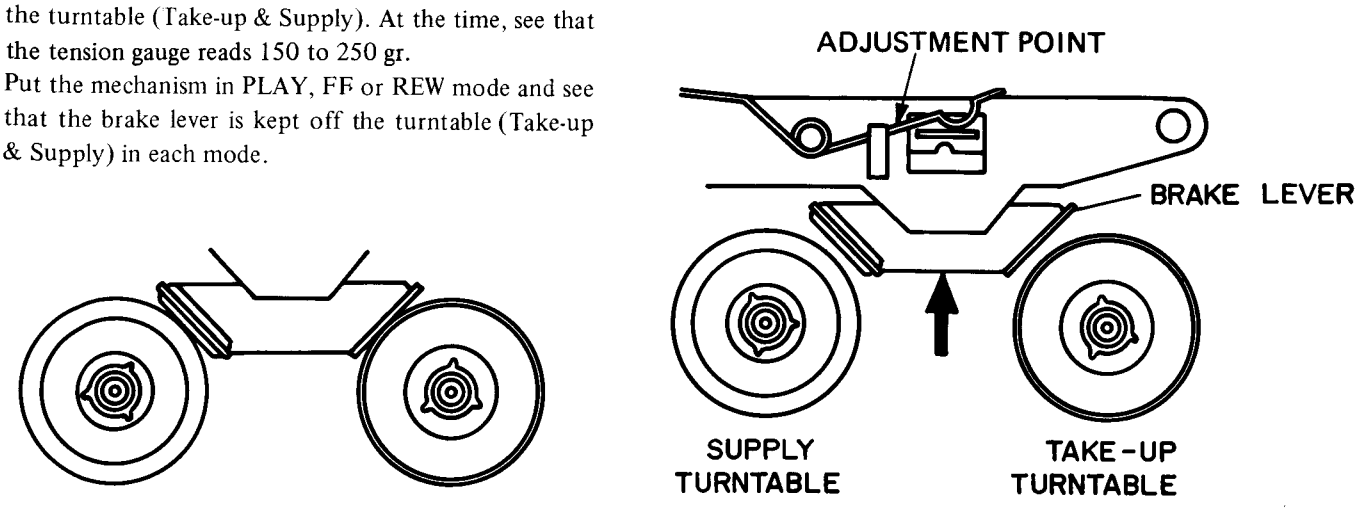


Figure 4

BRAKE MECHANISM ADJUSTMENT (Refer to Figure 5)

1. Put the mechanism in STOP mode, push the brake lever in the arrowed direction shown in Fig. 5 by using a tension gauge (0 ~ 300 gr.) until the brake lever touches the turntable (Take-up & Supply). At the time, see that the tension gauge reads 150 to 250 gr.
2. Put the mechanism in PLAY, FF or REW mode and see that the brake lever is kept off the turntable (Take-up & Supply) in each mode.



STOP MODE

Figure 5

PLAY, FF, REW MODE

TORQUE CHECK (Refer to Figure 6)

1. Set the torque measuring reel to the turntable (to the take-up side at PLAY or FAST FWD mode and to the supply side at REWIND mode).
2. Then, rotate the reel in the same direction as for turntable and read the torque value when the pointer is stabilized.

Mode	Torque Value
PLAY	30 – 60 gr. cm
FAST FWD	55 – 90 gr. cm
REWIND	55 – 90 gr. cm

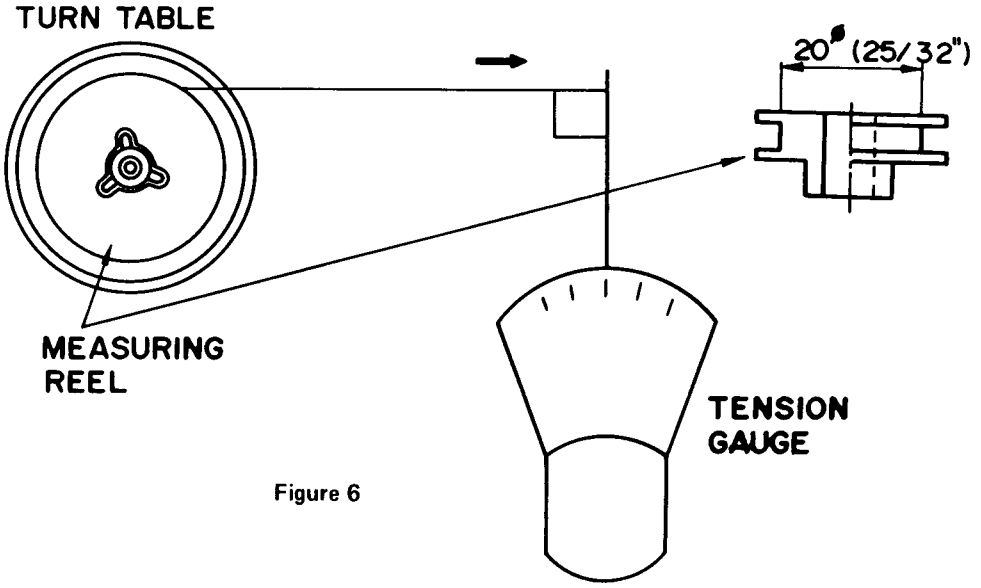


Figure 6

MOTOR SWITCH SETTING POSITION ADJUSTMENT (Refer to Figure 7)

1. Check that the brake return lever is pressed against the switch (SW6) in PLAY mode and that the brake return lever is apart at the distance from the switch (SW6) in STOP mode.
2. Adjust it by bending the adjustment point when the distance is abnormal.

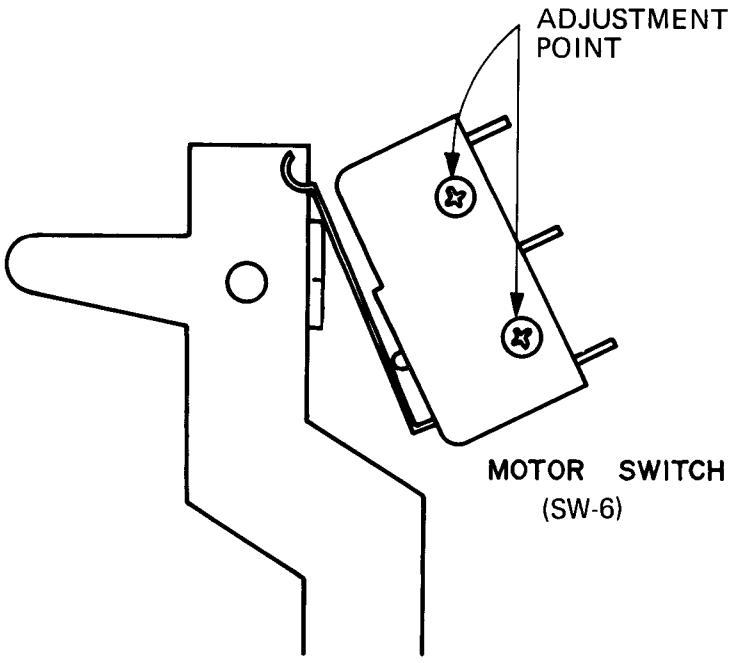


Figure 7

MUTING SWITCH SETTING POSITION ADJUSTMENT (Refer to Figure 9)

Loosen the screw so that the contact clearance will be 0.3 ~ 0.5mm in the PLAYBACK mode, as shown in Figure 9. Be sure the contact points touch with each other tightly.

BIAS SWITCH SETTING POSITION ADJUSTMENT (Refer to Figure 8)

Loosen the screw so that the contact points will be touch with each other tightly in the PLAYBACK mode.

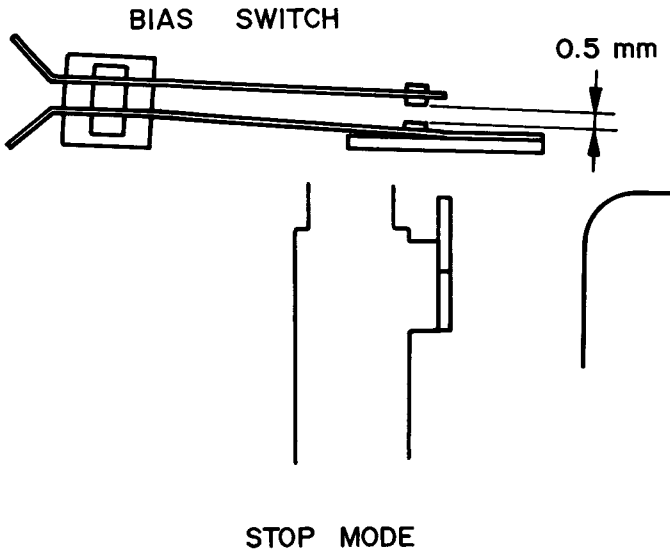


Figure 8

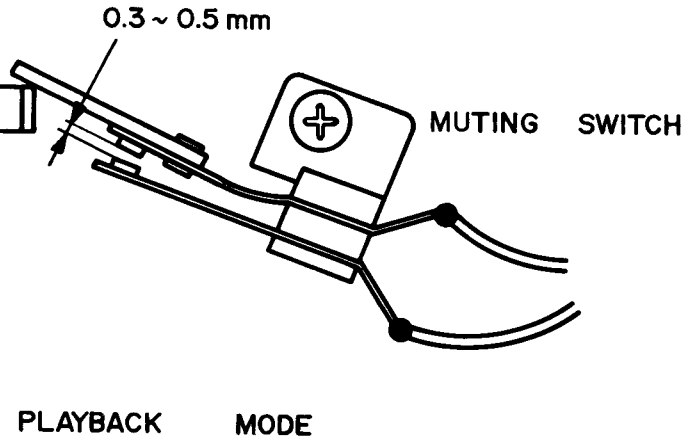


Figure 9

CHECK AND ADJUSTMENT OF TAPE SPEED

(Refer to Figure 10)

1. Playback a test tape of 3,000 Hz, available in the market.
2. Connect a frequency counter to REC/PB terminal.
3. At the time, it is normal if the frequency counter reads 3,000 Hz ±1%. If the reading is other than the above, adjust VR601 shown in Figure 10.

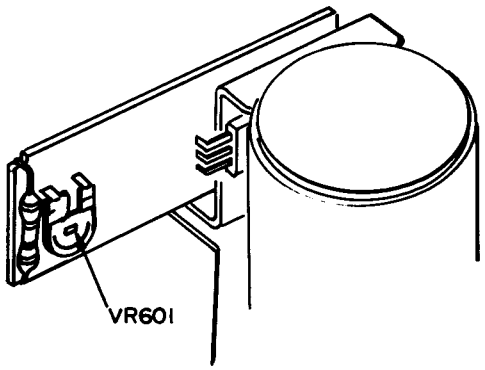


Figure 10

ELECTRICAL ADJUSTMENT

RECORD AMPLIFIER BIAS OSCILLATOR ADJUSTMENT (Refer to Figure 11)

1) As shown in Fig. 11, connect the V.T.V.M. in between the test point (TP-4, TP-5) and earth.
2) Set the Auto Tape Selector Switch (SW7) in the NORMAL position.
3) Set the unit at "RECORD" mode.
4) Then, connect the frequency counter to the output terminal of the V.T.V.M. and adjust the oscillation coil (L301) so that the bias oscillation frequency becomes 84 kHz.
5) Adjust the Semi-variable resistor (VR9, VR10) so that the V.T.V.M. reads 45mV.
6) To check the CrO_2 position, leave Auto Tape Selector Switch (SW7) in the CrO_2 position. It is normal if V.T.V.M.'s reading is 61 ~ 69mV.

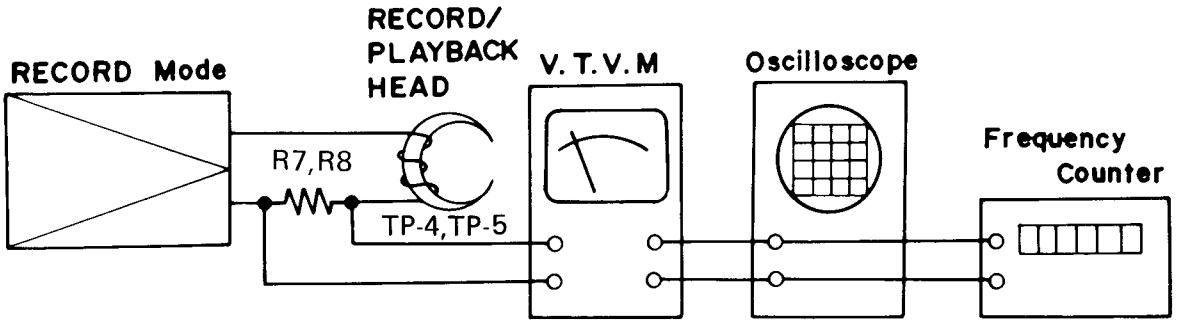


Figure 11

LEVEL METER SENSITIVITY ADJUSTMENT (Refer to Figure 12)

1) Connect the V.T.V.M. in between the test point (TP-1, TP-2) and earth.
2) Set Noise Suppressor Switch (SW-3) in the off position, and DIN Input Level Switch (SW9) in the HIGH position.
3) With the unit set at "RECORD" mode, give it signal of −10 dB, 1 kHz from REC/PB socket (SO101) and adjust RECORD LEVEL Control (VR3, VR4) so that the V.T.V.M. reads 500mV.
4) At this time, adjust the semi-variable resistor (VR7, VR8) so that the level meter indicates "0VU".

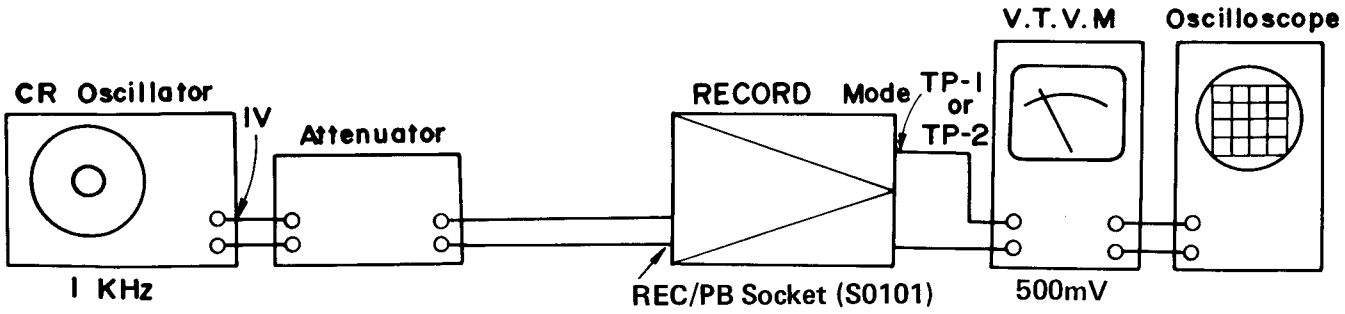


Figure 12

PLAYBACK SENSITIVITY ADJUSTMENT (Refer to Figure 13)

1) Set the unit at playback mode.
2) Connect 50K ohm dummy resistor to the REC/PB Socket (SO101) and connect the V.T.V.M. to its ends.
3) Load the unit with a test tape (MTT-150, 400 Hz recorded) and play it.
4) Set Noise Suppressor Switch (SW-3) in the off position, and Auto Tape Selector Switch (SW7) in the normal position.
5) At this time, adjust the semi-variable resistor (VR1, VR2) so that the V.T.V.M. reads 710mV.

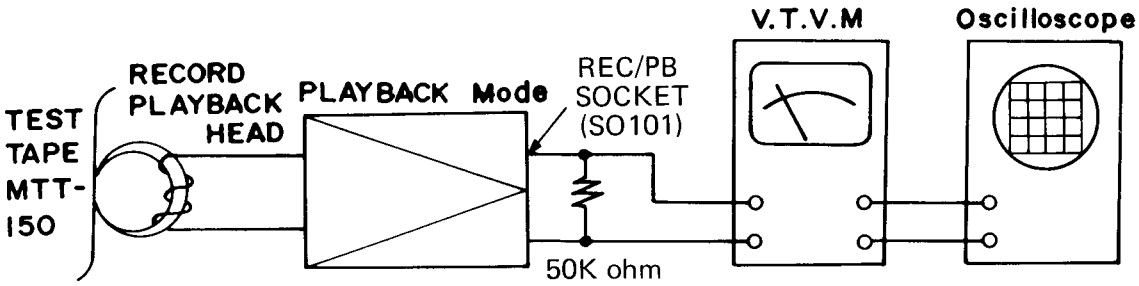


Figure 13

ERASE CURRENT CHECK (Refer to Figure 14)

1) Set the unit at "RECORD" mode.
2) Set the Auto Tape Selector Switch (SW7) in the CrO_2 position.
3) Connect V.T.V.M. to the test point (TP3) and earth.
   It is nromal if V.T.V.M.'s reading is 50 ~ 110mV.
4) To check the normal position, leave Auto Tape Selector Switch (SW7) in the NORMAL position.
   It is normal if V.T.V.M.'s reading is 35 ~ 85mV.

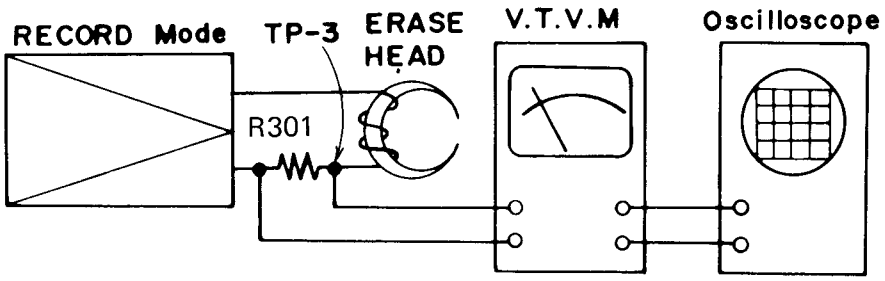


Figure 14

RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT (Refer to Figure 15)

1) Set Noise Suppressor Switch (SW3) in the off position.
2) Set Auto Tape Selector Switch (SW7) in the normal position.
3) Connect 50K ohm dummy resistor to the REC/PB Socket (SO101) and connect the V.T.V.M. to its ends.
4) Insert the test tape (MTT-114, 10 kHz Recorded).
5) Adjust the adjusting screw so that the playback output voltage of the test tape becomes maximum in the sides and the phase between channels gets same.

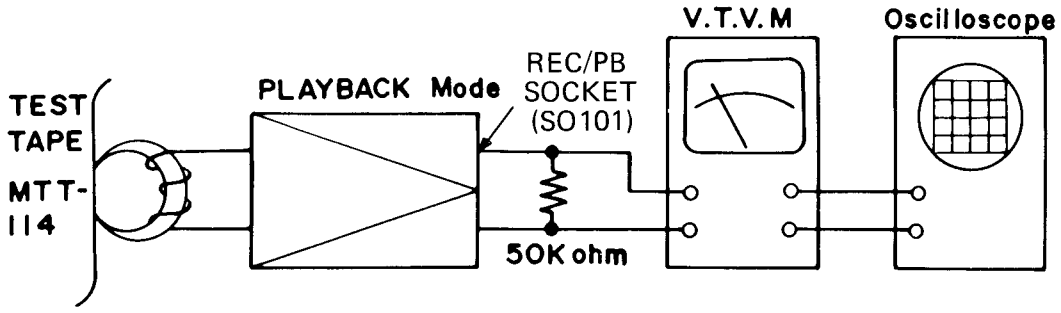


Figure 15

RECORD/PLAYBACK SENSITIVITY ADJUSTMENT (Refer to Figure 16)

1) Connect the V.T.V.M. in between the test point (TP-1, TP-2) and earth.
2) Insert the tape (Normal: MTT-502, CrO_2:MTT-505), and set the DIN Input Level Switch (SW9) in the HIGH position.
3) With the unit set at "RECORD" mode, give it signal of −10 dB, 1 kHz from REC/PB Socket (SO101) and adjust RECORD LEVEL Control (VR3, VR4) so that the V.T.V.M. reads 550mV.
4) Adjust the semi-variable resistor (VR5, VR6) so that the V.T.V.M. reads the playback output voltage of 550mV.
5) To check the CrO_2 tape, leave Auto Tape Switch (SW7) in the CrO_2 position.
6) It is normal if V.T.V.M.'s reading is 400 ~ 600mV.

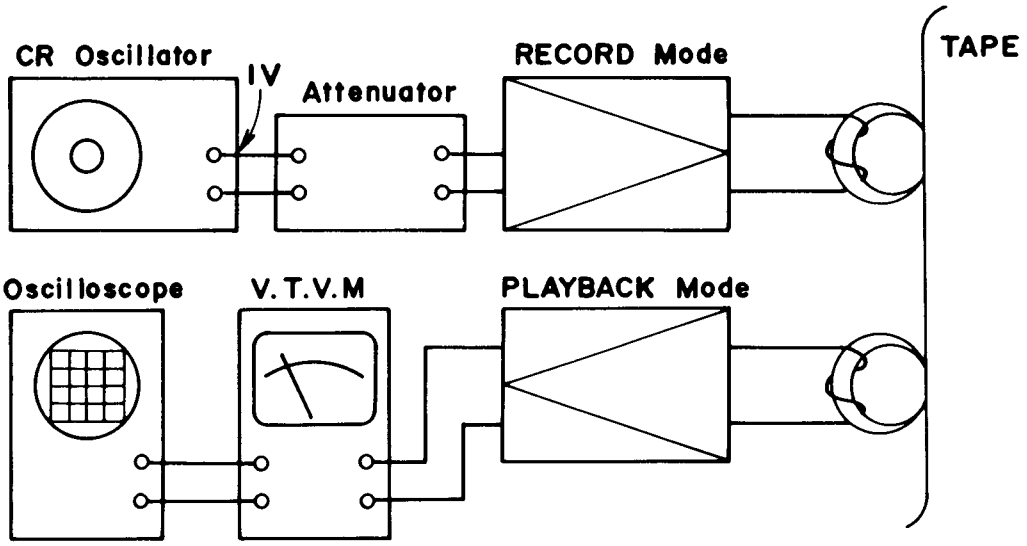
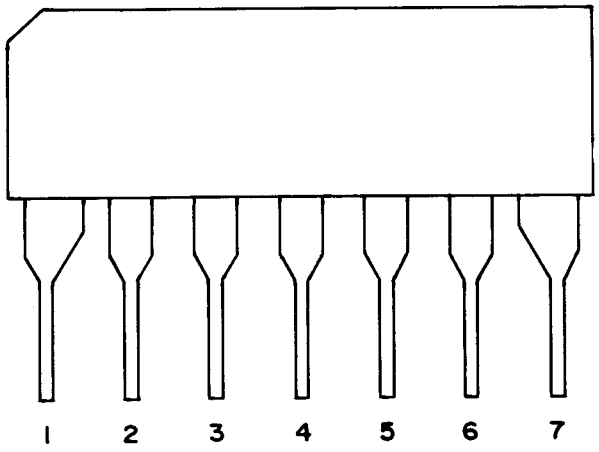


Figure 16

IC1, IC2 RH-IX0437AGZZ



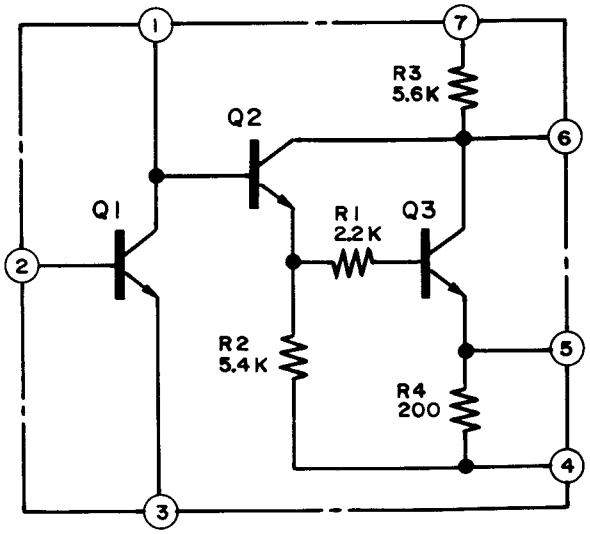
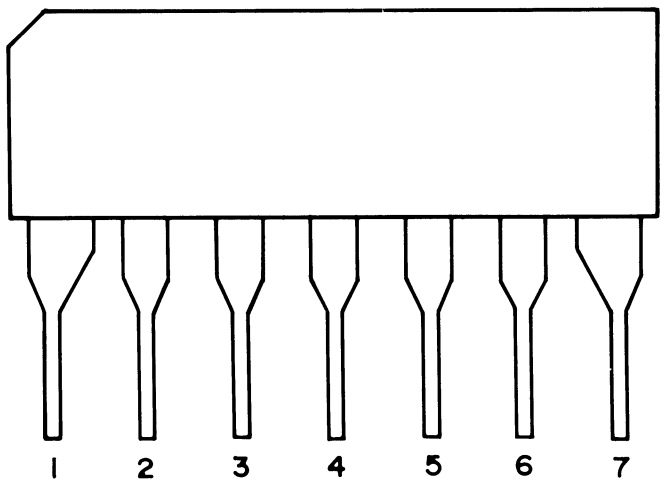


Figure 17 EQUIVALENT CIRCUIT



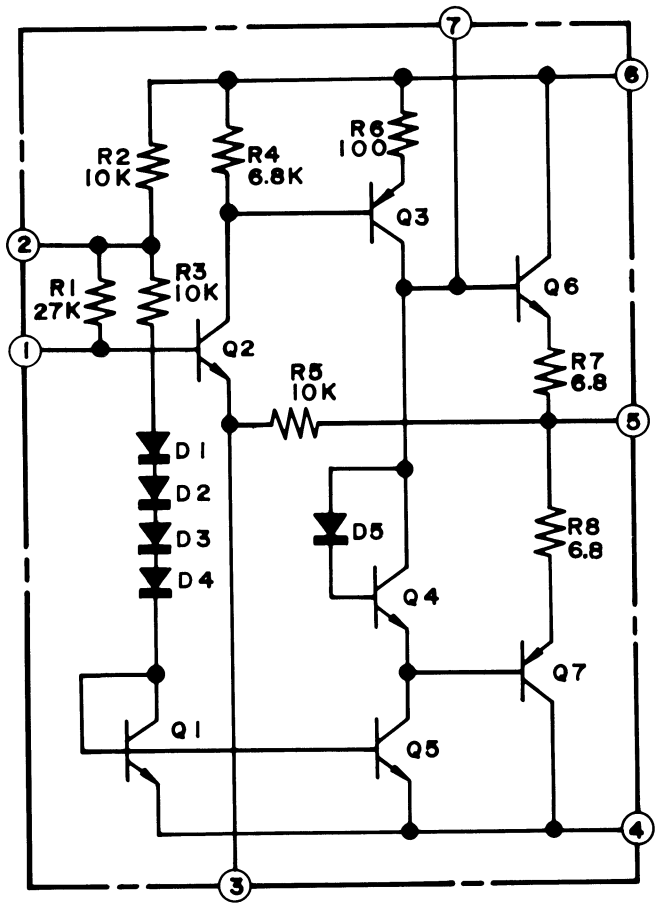


Figure 18 EQUIVALENT CIRCUIT

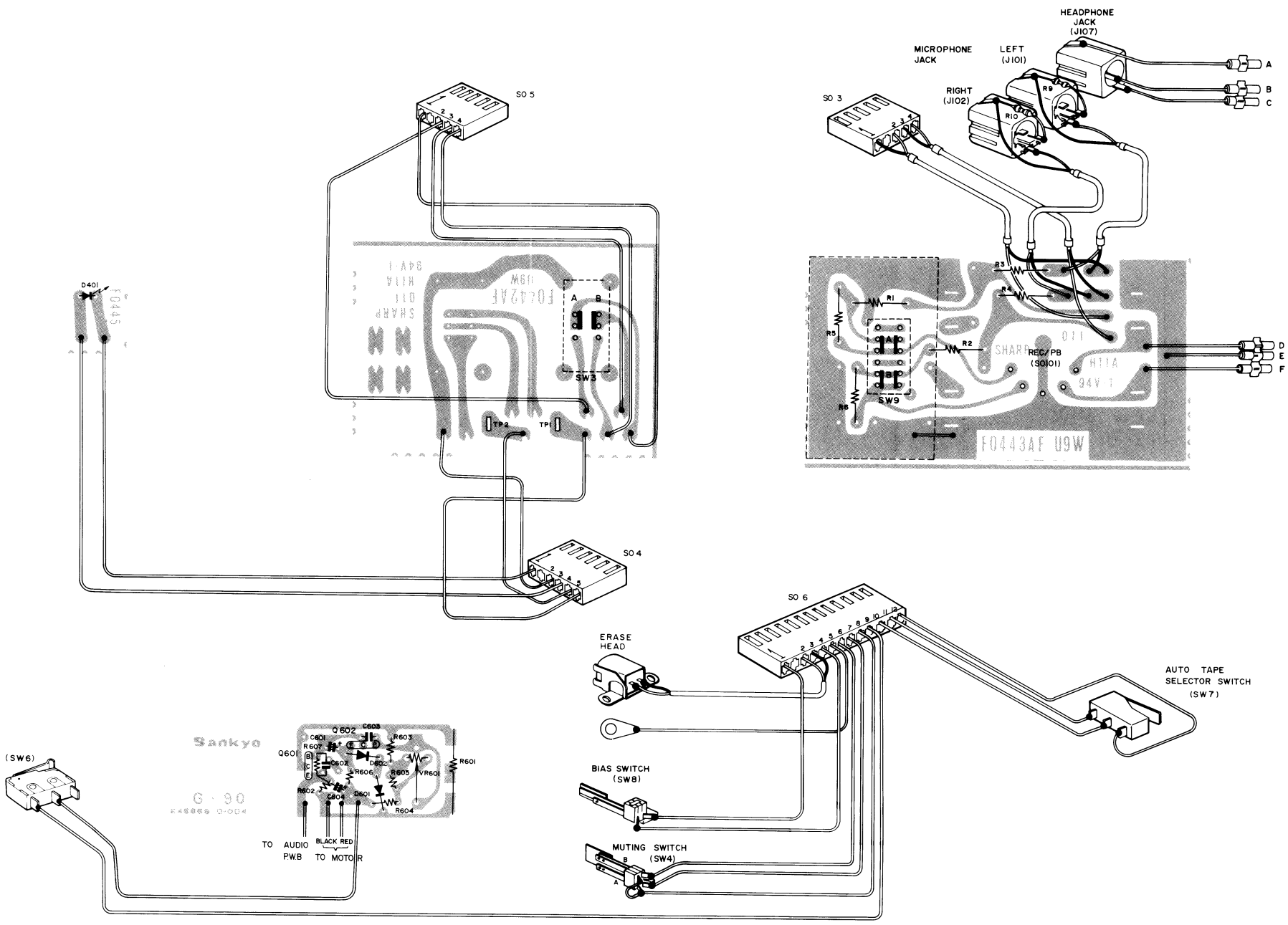


Figure 19 PRINTED CIRCUIT BOARD WIRING SIDE (1/2)

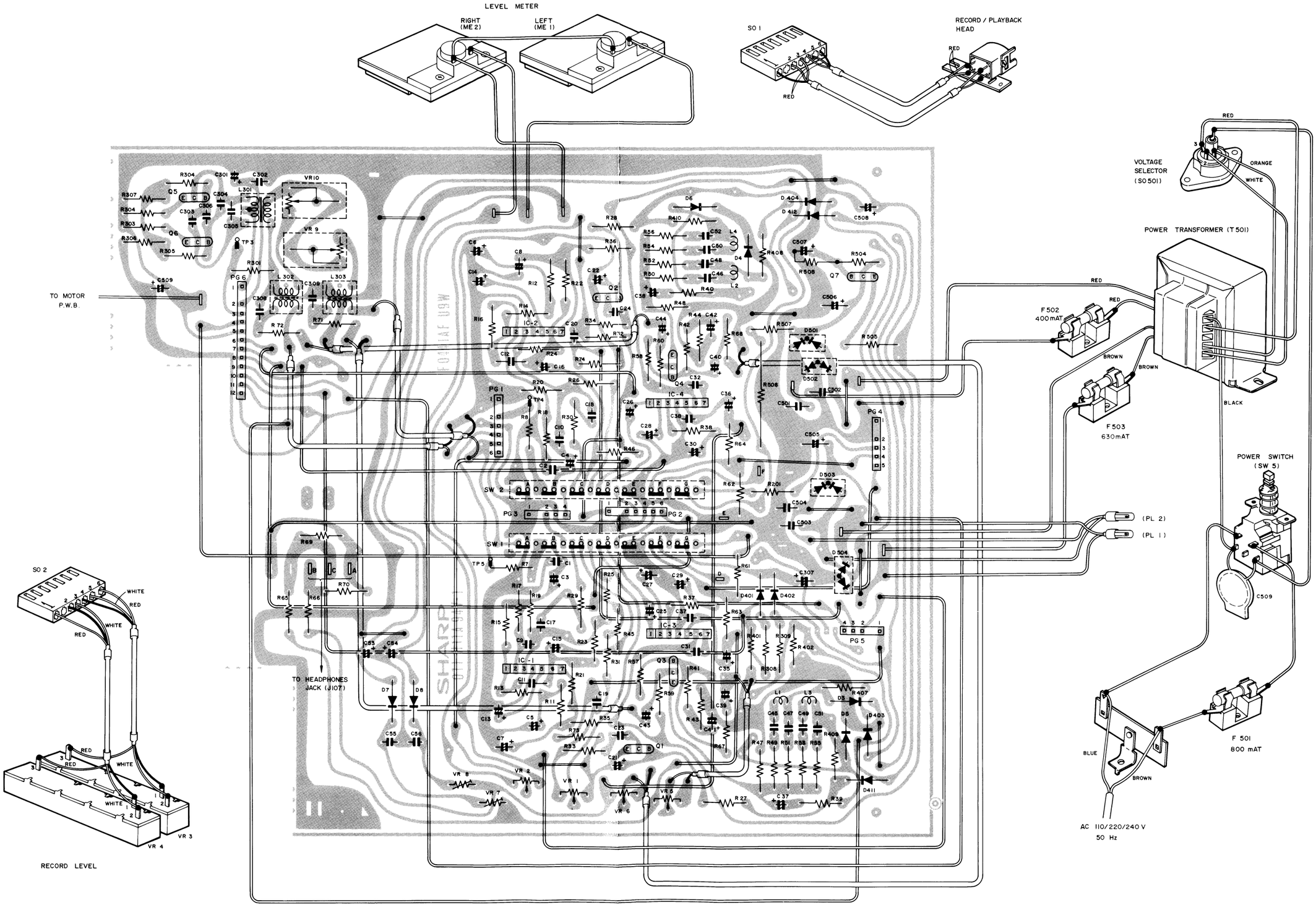
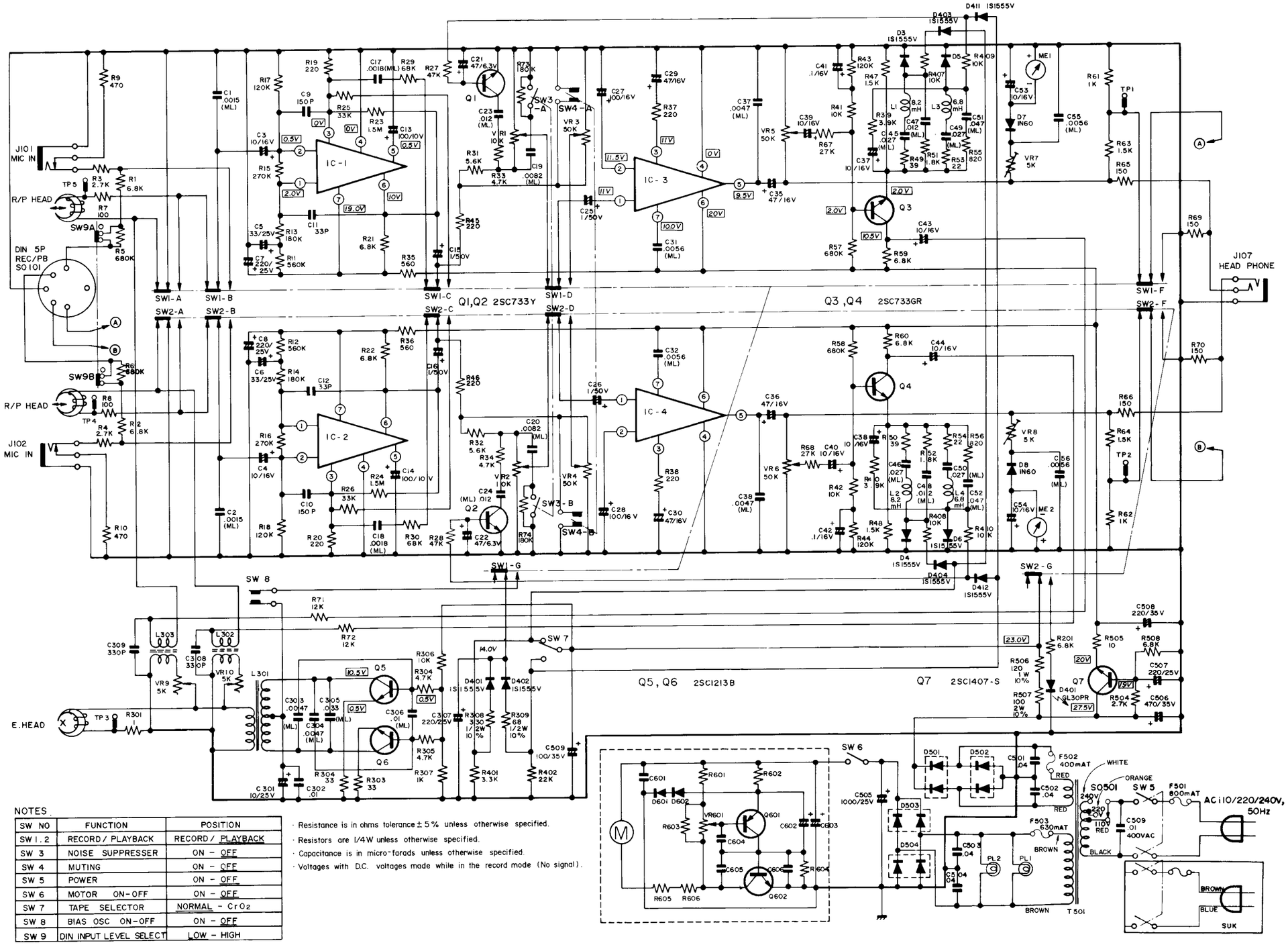


Figure 20 PRINTED CIRCUIT BOARD WIRING SIDE (2/2)



NOTES

SW NO	FUNCTION	POSITION
SW 1.2	RECORD / PLAYBACK	RECORD / PLAYBACK
SW 3	NOISE SUPPRESSER	ON - OFF
SW 4	MUTING	ON - OFF
SW 5	POWER	ON - OFF
SW 6	MOTOR ON-OFF	ON - OFF
SW 7	TAPE SELECTOR	NORMAL - CrO_2
SW 8	BIAS OSC ON-OFF	ON - OFF
SW 9	DIN INPUT LEVEL SELECT	LOW - HIGH

- Resistance is in ohms tolerance ± 5 % unless otherwise specified.
- Resistors are 1/4W unless otherwise specified.
- Capacitance is in micro-farads unless otherwise specified.
- Voltages with D.C. voltages made while in the record mode (No signal).

Specifications or wiring diagrams of this model are subject to change for the improvement without prior notice.

Figure 21 SCHEMATIC DIAGRAM

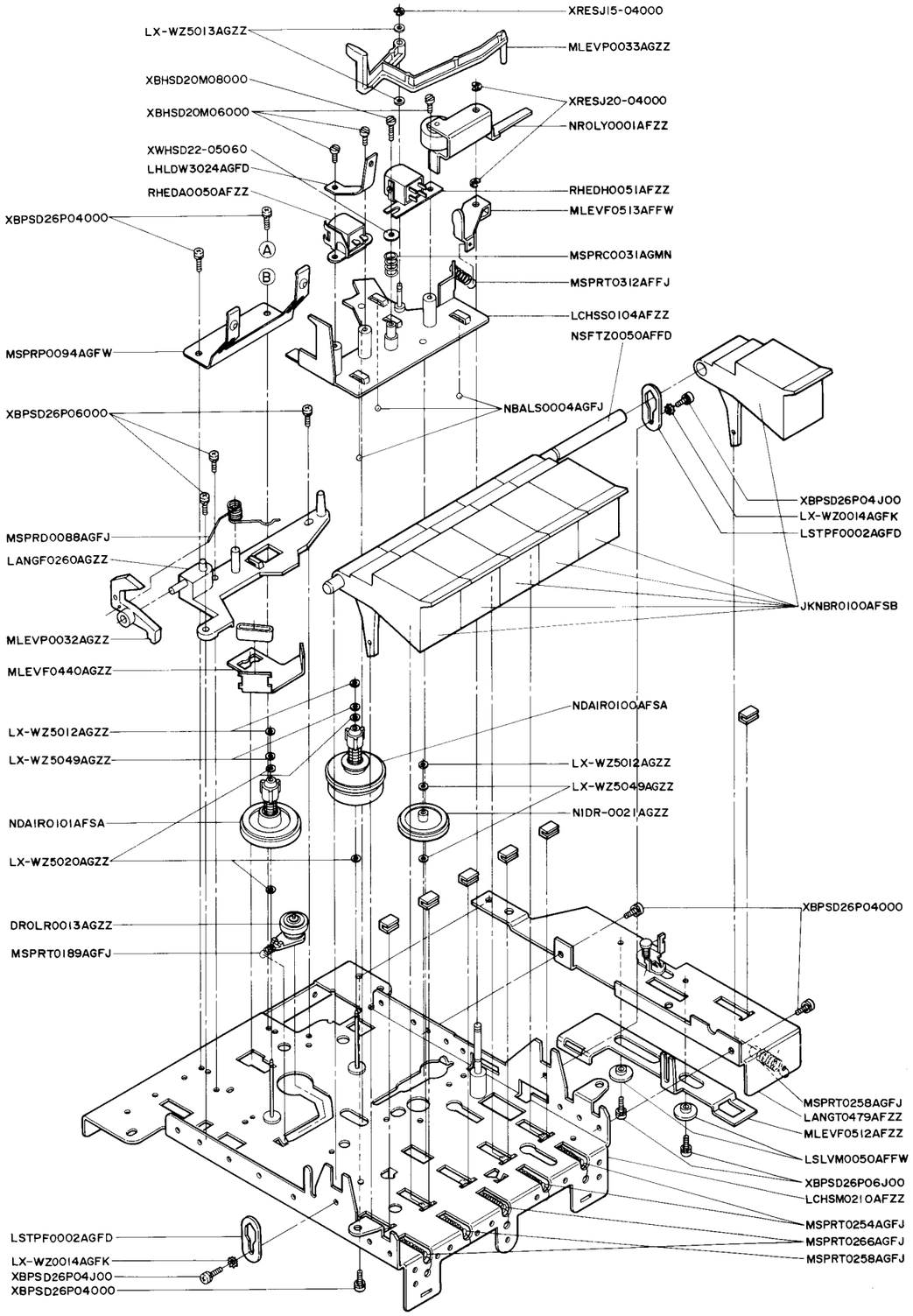


Figure 22 MECHANISM EXPLODED TOP VIEW

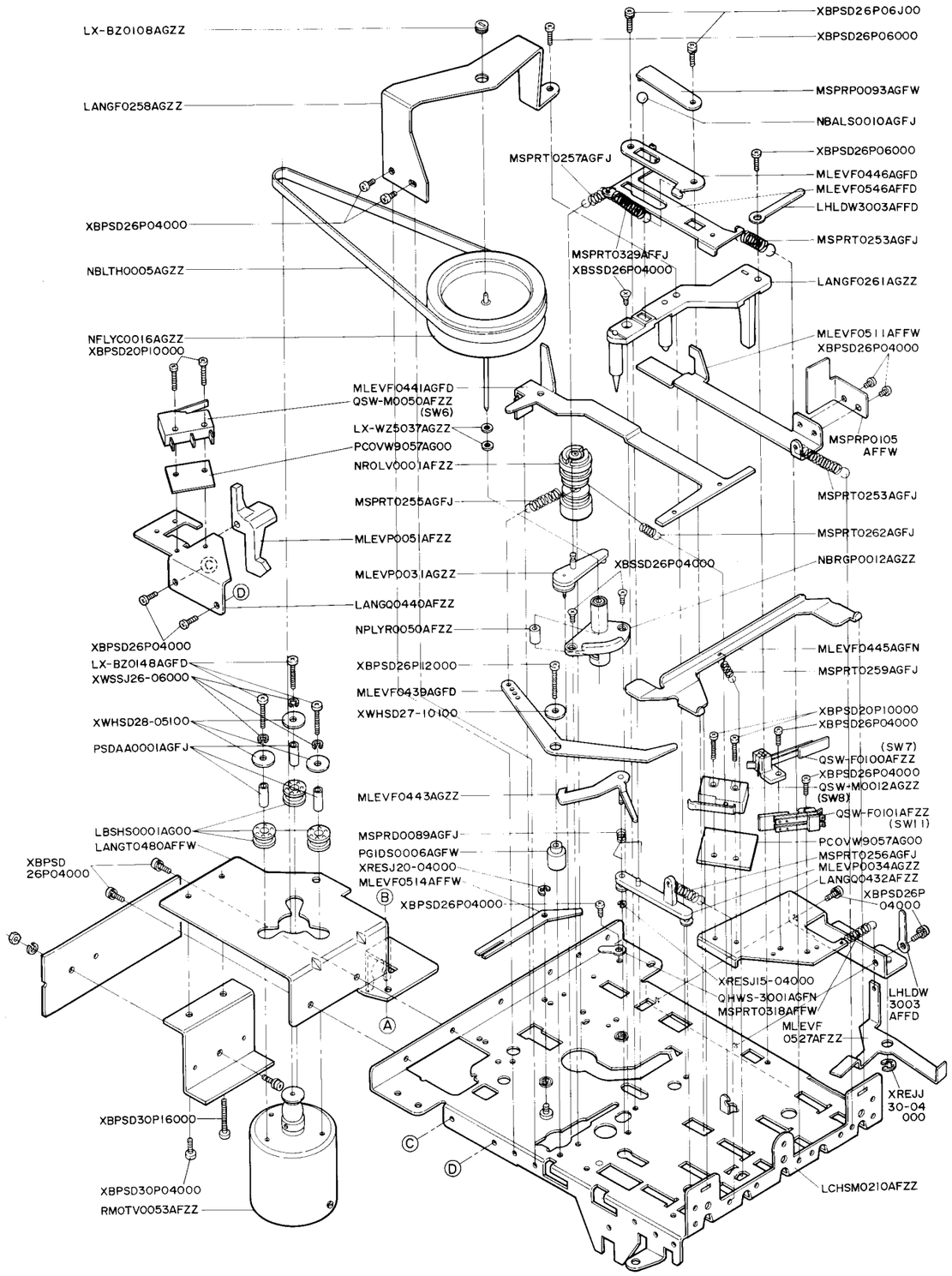


Figure 23 MECHANISM EXPLODED BOTTOM VIEW

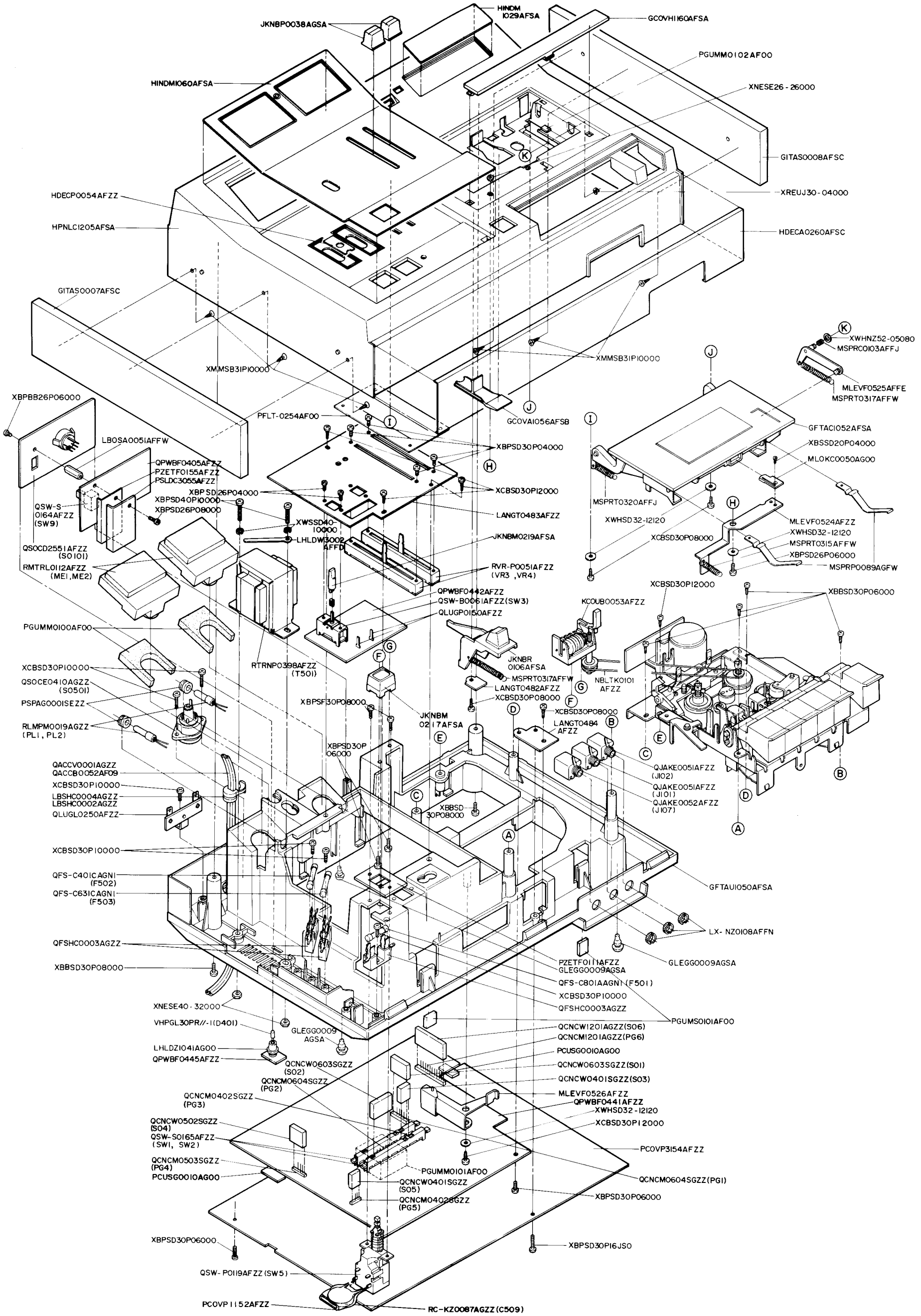


Figure 24 CABINET EXPLODED VIEW

REPLACEMENT PARTS LIST

"HOW TO ORDER REPLACEMENT PARTS"
To have your order filled promptly and correctly, please furnish the following informations.
1. MODEL NUMBER 2. REF. NO.
3. PART NO. 4. DESCRIPTION

REF. NO.	PART NO.	DESCRIPTION	CODE
		CAPACITORS	
C509	RC-KZ0087AGZZ	.01MFD, 400V, +100 −0%, Ceramic	AE
C9, C10	VCCSPU1HL151K	150PF, 50V, +10 −10%, Ceramic	AA
C11, C12	VCCSPU1HL330K	33PF, 50V, +10 −10%, Ceramic	AA
C308, C309	VCCSPU1HL331K	330PF, 50V, +10 −10%, Ceramic	AB
C302	VCKZPU1EF103Z	.01MFD, 25V, +80 −20%, Ceramic	AC
C501, C502, C503, C504	VCKZPU1HF403Z	.04MFD, 50V, +80 −20%, Ceramic	AB
C306	VCQYKU1HM103K	.01MFD, 50V, +10 −10%, Mylar	AB
C23, C24	VCQYKU1HM123J	.012MFD, 50V, +5 −5%, Mylar	AC
C47, C48	VCQYKU1HM123K	.012MFD, 50V, +10 −10%, Mylar	AB
C1,C2	VCQYKU1HM152K	.0015MFD, 50V, +10 −10%, Mylar	AB
C17, C18	VCQYKU1HM182J	.0018MFD, 50V, +10 −10%, Mylar	AC
C45, C46, C49, C50	VCQYKU1HM273J	.027MFD, 50V, +10 −10%, Mylar	AC
C305	VCQYKU1HM333K	.033MFD, 50V, +10 −10%, Mylar	AB
C37, C38, C303, C304	VCQYKU1HM472K	.0047MFD, 50V, +10 −10%, Mylar	AB
C51, C52	VCQYKU1HM473K	.047MFD, 50V, +10 −10%, Mylar	AC
C31, C32, C55, C56	VCQYKU1HM562K	.0056MFD, 50V, +10 −10%, Mylar	AB
C19, C20	VCQYKU1HM822K	.0082MFD, 50V, +10 −10%, Mylar	AB
		ELECTROLYTIC CAPACITORS	
C21, C22	VCEAAU0XW476Y	47MFD, 6.3V, +50 −10%	AB
C13, C14	VCEAAU1AW107Y	100MFD, 10V, +50 −10%	AB
C37, C38, C39, C40, C43, C44, C53, C54	VCEAAU1CW106Y	10MFD, 16V, +50 −10%	AB
C27, C28	VCEAAU1CW107Y	100MFD, 16V, +50 −10%	AC
C29, C30, C35, C36	VCEAAU1CW476Y	47MFD, 16V, +50 −10%	AC
C301	VCEAAU1EW106Y	10MFD, 25V, +50 −10%	AB
C505	VCEAAU1EW108Y	1000MFD, 25V, +50 −10%	AF
C7,C8, C307, C507	VCEAAU1EW227Y	220MFD, 25V, +50 −10%	AC
C5,C6	VCEAAU1EW336Y	33MFD, 25V, +50 −10%	AC
C15, C16, C25, C26	VCEAAU1HW105A	.1MFD, 50V, +75 −10%	AB
C509	VCEAAU1VW107Y	100MFD, 35V, +50 −10%	AD
C508	VCEAAU1VW227Y	220MFD, 35V, +50 −10%	AD
C506	VCEAAU1VW477Y	470MFD, 35V, +50 −10%	AE
C3,C4	VCEALU1CC106Y	10MFD, 16V, +50 −10%	AC
C41, C42	VCEALU1CW104M	.1MFD, 16V, +20 −20%	AB
		RESISTORS	
		(Unless otherwise specified resistors are 1/4W, ±5%, Carbon Type.)	
R505	RR-XZ0003AGZZ	10 ohm	AB
R308	VRC-MT2HG331K	330 ohm, 1/2W, +10 −10%, Carbon	AA
R309	VRC-MT2HG680K	68 ohm, 1/2W, +10 −10%, Carbon	AA
R301	VRD-ST2EE1R0J	1 ohm	AA
R7,R8	VRD-ST2EE101J	100 ohm	AA
R61, R62, R307	VRD-ST2EE102J	1K ohm	AA
R41, R42, R306, R407, R408, R409, R410	VRD-ST2EE103J	10K ohm	AA
R71, R72	VRD-ST2EE123J	12K ohm	AA
R17, R18, R43, R44	VRD-ST2EE124J	120K ohm	AA
R65, R66, R69, R70	VRD-ST2EE151J	150 ohm	AA
R47, R48, R63, R64	VRD-ST2EE152J	1.5K ohm	AA
R23, R24	VRD-ST2EE155J	1.5 Meg ohm	AA
R51, R52	VRD-ST2EE182J	1.8K ohm	AA
R13, R14, R73, R74	VRD-ST2EE184J	180 K ohm	AA
R53, R54	VRD-ST2EE220J	22 ohm	AA
R19, R20, R37, R38, R45, R46	VRD-ST2EE221J	220 ohm	AA
R402	VRD-ST2EE223J	22K ohm	AA
R3, R4, R504	VRD-ST2EE272J	2.7K ohm	AA
R67, R68	VRD-ST2EE273J	27K ohm	AA
R15, R16	VRD-ST2EE274J	270K ohm	AA
R303, R304	VRD-ST2EE330J	33 ohm	AA
R401	VRD-ST2EE332J	3.3K ohm	AA
R25, R26	VRD-ST2EE333J	33K ohm	AA
R49, R50	VRD-ST2EE390J	39 ohm	AA
R39, R40	VRD-ST2EE392J	3.9K ohm	AA
R33, R34, R304, R305	VRD-ST2EE472J	4.7K ohm	AA
R27, R28	VRD-ST2EE473J	47K ohm	AA
R35, R36	VRD-ST2EE561J	560 ohm	AA
R31, R32	VRD-ST2EE562J	5.6K ohm	AA
R11, R12	VRD-ST2EE564J	560K ohm	AA
R1,R2, R21, R22, R59, R60, R201	VRD-ST2EE682J	6.8K ohm	AA
R29, R30	VRD-ST2EE683J	68K ohm	AA
R5,R6, R57, R58	VRD-ST2EE684J	680K ohm	AA
R55, R56	VRD-ST2EE821J	820 ohm	AA
R9, R10	VRD-ST2EY471J	470 ohm	AA
R508	VRD-ST2EY682J	6.8K ohm	AA
R506	VRS-PT3AB121K	120 ohm, 1W, +10 −10%, Carbon	AB
R507	VRS-PT3DB101K	100 ohm, 2W, +10 −10%, Carbon	AB
		CONTROLS	
VR1, VR2	RVR-M0093AGZZ	10K ohm, Playback Sensitivity Adjust	AC
VR3, VR4	RVR-P0051AFZZ	50K ohm, RECORD LEVEL	AG
VR5, VR6	RVR-M0011AGZZ	50K ohm, Record Sensitivity Adjust	AC
VR7, VR8	RVR-M0094AGZZ	5K ohm, Meter Sensitivity Adjust	AC
VR9, VR10	RVR-M0049AGZZ	5K ohm, Bias Current Adjust	AC
		TRANSISTORS	
Q1,Q2	VS2SC733-Y/-1	Equalizer Amp.	AF
Q3,Q4	VS2SC733GR/-1	Record Amp.	AF
Q5,Q6	VS2SC1213-B-3	Bias Oscillator	AF
Q7	VS2SC1407-S1F	Ripple Filter	AF
		DIODES	
D3,D4	VHD1S1555V/1G	Switching	AC
D5,D6	VHD1S1555V/1G	Switching	AC
D7,D8	VHD1N60////-1	Meter Rectifier	AB
D401, D402	VHD1S1555V/1G	Switching	AC
D403, D404	VHD1S1555V/1G	Switching	AC
D411, D412	VHD1S1555V/1G	Switching	AC
D405	VHPGL30PR//-1	Record Indicator	AE
D501, D503	RH-DX1003AFZZ	Rectifier	AD
D502, D504	RH-DX1004AFZZ	Rectifier	AD
		COILS	
L1,L2	RCILZ0016AGZZ	Record Equalizer	AD
L3,L4	RCILZ0019AGZZ	Record Equalizer	AD
L301	RCILB0085AGZZ	Bias Oscillator	AF
L302, L303	RCILB0087AGZZ	Bias Step-up	AF
		TRANSFORMER	
T501	RTRNP0398AFZZ	Power	AW

PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	CODE
		INTEGRATED CIRCUITS	
IC1, IC2	RH-IX0437AGZZ	Audio Amp.	AH
IC3, IC4	RH-IX1011AFZZ	Headphone Amp.	AK
		MISCELLANEOUS	
	DROLR0013AGZZ	Roller, Rewind	AG
	GCOVA1056AFSB	Decoration, Cassette Compartment	AC
	GCOVH1160AFSA	Cover, Head	AF
	GFTAC1052AFSA	Lid, Cassette Compartment	AL
	GFTAU1050AFSA	Cabinet, Bottom	AQ
	GITAS0007AFSC	Board, Left Side	AK
	GITAS0008AFSC	Board, Right Side	AK
	GLEGG0009AGSA	Leg, Rubber	AA
	HDECA0260AFSC	Decoration, Front	AK
	HDECP0054AFZZ	Plate, Slide, Switch	AA
	HINDM1029AFSA	Decoration, SHARP	AC
	HINDM1060AFSA	Decoration, RECORD LEVEL	AN
	HPNLC1205AFSA	Panel, Top	AW
	JKNBM0217AFSA	Knob, POWER	AD
	JKNBM0219AFSA	Knob, NOISE SUPPRESSOR	AD
	JKNBP0038AGSA	Knob, RECORD LEVEL	AD
	JKNBR0100AFSB	Knob, Function	AH
	JKNBR0106AFSA	Knob, EJECT	AC
	KCOUB0053AFZZ	Counter	AN
	LANGF0258AGZZ	Bracket, Flywheel	AC
	LANGF0260AGZZ	Bracket, Record Safety Lever	AD
	LANGF0261AGZZ	Bracket, Tape Guide (40A115)	AE
	LANGQ0432AFZZ	Bracket, Switch Retaining	AD
	LANGQ0440AFZZ	Bracket, Auto Tape Selector Switch	AD
	LANGT0479AFZZ	Bracket, Pause Lever	AF
	LANGT0480AFFW	Bracket, Motor	AE
	LANGT0482AFZZ	Bracket, EJECT Knob	AA
	LANGT0483AFZZ	Bracket, RECORD LEVEL	AD
	LANGT0484AFZZ	Bracket, Printed Wiring Board	AB
	LBOSA0051AFFW	Spacer, Terminal	AB
	LBSHC0002AGZZ	Bushing, AC Cord	AB
	LBSHC0004AGZZ	Bushing, AC Cord	AC
	LBSHS0001AG00	Cushion, Rubber, Motor (40A146)	AA
	LCHSM0210AFZZ	Mechanism Mounting Plate	AN
	LCHSS0104AFZZ	Sub-chassis	AG
	LHLDW3002AFFD	Holder, Wire	AA
	LHLDW3024AGFD	Wire Holder (36A0057)	AA
	LHLDZ1041AG00	Holder, REC Indicator	AB
	LSLVM0050AFFW	Spacer, Pause Lever	AA
	LSTPF0002AGFD	Bracket, Function Button Shaft (40A150)	AA
	LX-BZ0108AGZZ	Screw, Flywheel Thrust Adjust (40A141)	AB
	LX-NZ0108AFFN	Nut, Microphone/Headphone Jacks	AB
	MLEVF0439AGFD	Lever, Fast Forward	AB
	MLEVF0440AGZZ	Lever, Brake (40A116-A)	AC
	MLEVF0441AGFD	Lever, Over Stroke	AC
	MLEVF0443AGZZ	Lever, Auto Stop	AC
	MLEVF0445AGFN	Lever, Lock (40A154)	AC
	MLEVF0446AGFD	Lever, Over Stroke Spring	AB
	MLEVF0511AFFW	Lever, Record Operation	AC
	MLEVF0512AFZZ	Lever, Pause	AC
	MLEVF0513AFFW	Lever, Pressure Roller	AC
	MLEVF0514AFFW	Lever, Take-up Idler	AB
	MLEVF0524AFZZ	Lever, Lock (40A154)	AB
	MLEVF0525AFFE	Lever, Cassette Holder Up Arm	AD
	MLEVF0526AFZZ	Lever, Record/Playback Switching	AE
	MLEVF0527AFZZ	Lever, Eject Safety	AB
	MLEVF0546AFFD	Lever, Over Stroke	AA
	MLEVP0031AGZZ	Lever, Take-up Idler (40A135)	AE
	MLEVP0032AGZZ	Lever, Record Safety (40A118-A)	AB
	MLEVP0033AGZZ	Lever, Tape End Sensing (40A108)	AC
	MLEVP0034AGZZ	Lever, Auto Stop (40A122)	AB
	MLEVP0051AFZZ	Lever, Auto Tape Selector	AC
	MLOKC0050AG00	Lever, Lock	AC
	MSPRC0031AGMN	Spring, Head Azimuth	AA
	MSPRC0103AFFJ	Spring, Cassette Holder Up Arm Lever	AA
	MSPRD0088AGFJ	Spring, Record Safety Lever	AB
	MSPRD0089AGFJ	Spring, Auto Stop Lever (40A123-A)	AB
	MSPRP0089AGFW	Spring, Cassette Retaining	AB
	MSPRP0093AGFW	Spring, Sub-chassis Retaining (40A132-A)	AB
	MSPRP0094AGFW	Spring, Cassette Retaining	AB
	MSPRP0105AFFW	Plate, Spring, Record/Playback Switches	AB
	MSPRT0189AGFJ	Spring, Rewind Roller Lever	AA
	MSPRT0253AGFJ	Spring, Record Connecting Lever	AA
	MSPRT0254AGFJ	Spring, Function Button (40A151)	AA
	MSPRT0255AGFJ	Spring, Fast Forward Roller	AA
	MSPRT0256AGFJ	Spring, Auto Stop Lever Return (40A124)	AA
	MSPRT0257AGFJ	Spring, Take-up Ider (40A136)	AA
	MSPRT0258AGFJ	Spring, REWIND Button	AA
	MSPRT0259AGFJ	Spring, Lock Plate (40A155)	AA
	MSPRT0262AGFJ	Spring, Fast Forward Roller	AC
	MSPRT0266AGFJ	Spring, RECORD/Fast Forward Button	AA
	MSPRT0312AFFJ	Spring, Pressure Roller Lever	AA
	MSPRT0315AFFW	Spring, Cassette Compartment, Lock	AA
	MSPRT0317AFFW	Spring, EJECT Knob	AA
	MSPRT0318AFFW	Spring, Eject Safety Lever	AA
	MSPRT0320AFFJ	Spring, Cassette Compartment	AA
	MSPRT0329AFFJ	Spring, Over Stroke	AA
	NBALS0004AGFJ	Ball, 2.5ϕ	AA
	NBALS0010AGFJ	Ball, 3/16"ϕ	AA
	NBLTH0005AGZZ	Belt, Drive	AE
	NBLTK0101AFZZ	Belt, Counter	AC
	NBRGP0012AGZZ	Bearing, Capstan (40A120-A)	AH
	NDAIR0100AFSA	Turntable, Take-up	AG
	NDAIR0101AFSA	Turntable, Supply	AE
	NFLYC0016AGZZ	Flywheel	AN
	NIDR-0021AGZZ	Idler, Take-up (40A142-A)	AD
	NPLYR0050AFZZ	Pulley, Take-up	AD
	NROLV0001AFZZ	Roller, Fast Forward	AK
	NROLY0001AFZZ	Lever, Pressure Roller	AG
	NSFTZ0050AFFD	Shaft, Function Button	AD
	PCOVP1152AFZZ	Cover, Capacitor	AB
	PCOVP3154AFZZ	Cover, Printed Wiring Board	AG
	PCOVW9057AG00	Insulator, Motor Switch	AA

PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	CODE
	PCUSG0010AG00	Cushion, Printed Wiring Board	AA
	PFLT-0254AF00	Felt, RECORD LEVEL	AA
	PGIDS0006AGFW	Spacer, Fast Forward Lever	AB
	PGUMM0100AF00	Holder, Lever Meter	AA
	PGUMM0101AF00	Cushion, Printed Wiring Board	AA
	PGUMM0102AF00	Cushion, Rubber, Cassette Compartment Lid	AA
	PGUMS0101AF00	Cushion, Top Cabinet	AA
	PSDAA0001AGFJ	Spacer, Motor Cushion	AB
	PSLDC3055AFZZ	Plate, Shield, Socket P.W.B.	AB
	PSPAG0001SEZZ	Holder, Lamp	AA
	PZETF0111AFZZ	Insulator, POWER Switch	AA
	PZETF0115AFZZ	Insulator, Shield Plate	AA
	PZETV0007TAZZ	Cover, Tip	AA
	QACCB0052AF09	Cord, AC Supply	AM
	QACCV0001AGZZ	Cord, AC Supply	AN
PG4	QCNCM0402SGZZ	Plug, 4 Pin	AD
PG5	QCNCM0503SGZZ	Plug, 5 Pin	AD
PG1,PG3	QCNCM0604SGZZ	Plug, 6 Pin	AD
PG2	QCNCM1201AGZZ	Plug, 12 Pin	AE
SO4	QCNCW0401SGZZ	Socket, 4 Pin	AB
SO5	QCNCW0502SGZZ	Socket, 5 Pin	AB
SO1,SO3	QCNCW0603SGZZ	Socket, 6 Pin	AB
SO2	QCNCW1201AGZZ	Socket, 12 Pin	AC
F502	QFS-C401CAGNI	Fuse, 400mAT	AE
F503	QFS-C631CAGNI	Fuse, 630mAT	AE
F501	QFS-C801AAGNI	Fuse, 800mAT	AE
	QFSHC0003AGZZ	Holder, Fuse	AD
	QHWS-3001AGFN	Terminal, Ground	AA
J101, J102	QJAKE0051AFZZ	Jack, Microphone	AE
J103	QJAKE0052AFZZ	Jack, Headphone	AE
	QLUGL0250AFZZ	Lug Terminal, 2 Terminal	AA
	QLUGP0150AFZZ	Lug Terminal	AA
	QLUGQ0105AGZZ	Lug Terminal	AA
	QPWBF0441AFZZ	Printed Wiring Board, Record/ Playback Amp.	AR
	QPWBF0443AFZZ	Printed Wiring Board, REC/PB Socket	AC
	QPWBF0442AFZZ	Printed Wiring Board, NOISE SUPPRESSOR Switch	AC
	QPWBF0445AFZZ	Printed Wiring Board, REC Indicator	AC
SO101	QSOCD2551AFZZ	Socket, REC/PB	AG
SO501	QSOCE0410AGZZ	Socket, Voltage Selector	AH
SW3	QSW-B0061AFZZ	Switch, NOISE SUPPRESSOR	AF
SW8	QSW-F0100AFZZ	Switch, Bias	AE
SW4	QSW-F0101AFZZ	Switch, Muting	AE
SW6	QSW-M0012AGZZ	Switch, Motor	AF
SW7	QSW-M0050AFZZ	Switch, Auto Tape Selector	AG
SW5	QSW-P0119AFZZ	Switch, POWER	AL
SW1, SW2	QSW-S0165AFZZ	Switch, Record/Playback	AF
SW9A, B	QSW-S0164AFZZ	Switch, HIGH/LOW	AF
	QTIPF0001CEYW	Tip	AA
	QTIPZ0002SGZZ	Tip, Plug	AA
	RHEDA0050AFZZ	Head, Erase	AN
	RHEDH0051AFZZ	Head, Record/Playback	AW
PL1, PL2	RLMPM0019AGZZ	Pilot Lamp, Meter Illumination	AE
	RMOTV0053AFZZ	Motor	AZ
ME1, ME2	RMTRL0112AFZZ	Meter, Record/Playback Level	AS
	RTPEK0034AGZZ	Cassette Tape	AP
	TSPC-0362AFZZ	Plate, Specification	AA

A2500-2.5MH
Printed in Japan